

# Chula Vista Nature Center

Sea World

U.S. Fish and Wildlife Service

Zoological Society of San Diego

Government of Mexico









# Status of LFCR



## Introduced & domestic animals

- Red Fox
  - Cats & Dogs
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# Status of LFCR



- The 5 Freeway cuts through most of southern CA coastal wetlands
- 90 % of coastal wetlands have been developed
- Remaining wetlands are fragmented







## **Naturalistic Habitat:**

**Native Coastal Marsh Plants**

**Dynamic Saltwater System with High/Low Tides**

**Live Fish, Crabs, Insects**

1998: 2 Rails Captured from Newport Bay





# 1999

During the 1999 breeding season, the first captive pair failed to breed



# 2000

In 2000, the birds still failed to breed. Some of the questions we asked ourselves were:

Are the birds too young? Too Old?

Is the enclosure too small?

Are the birds too stressed in  
Captivity ?

Is the male an idiot?

# 2001

Two more Rails Trapped from Newport Bay and brought into the captive propagation pens

Existing pair were split and introduced to the new birds

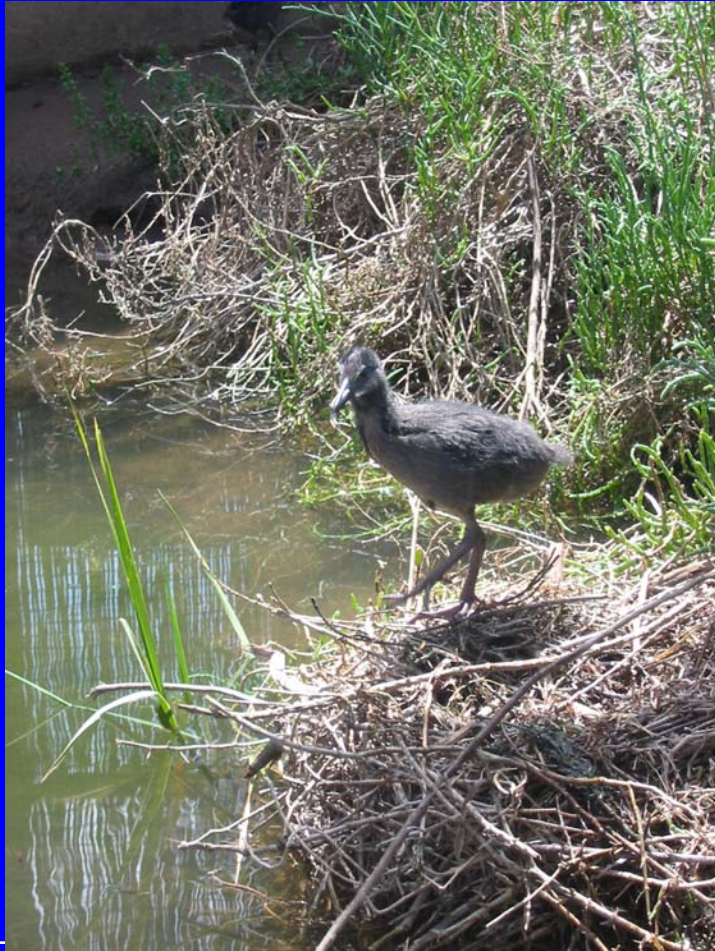
The pairs were housed in separate but closely proximal enclosures







# Natural incubation







## Artificial Incubation:

- Humidaire Incubator
  - Temperature 99°F dry bulb/ 88°F wet bulb
  - Egg turning (Automatic & Hand)
  - Incubation Period 21-23 days
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# Hacking for Release



## Intermediate:

- The cage is supplied with an external heat source
  - The cage is heavily planted
  - A pond is provided to encourage foraging and bathing
  - Chicks are fed adult diets four times daily
  - Live insects and natural live foods are supplemented to encourage foraging and hunting behavior
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# 2001 Results:

First Captive Breeding

7 Rails released at Pt Mugu

2 Rails kept for breeding.



# 2002

Third pair of Rails added to the program at CVNC. 2nd Generation

Will captive/hand-reared birds reproduce?









# Nature VS. Nurture

Will there be behavioral  
differences between hand-  
reared and parent-reared  
Rails?













# 2002 Results!

Two pairs double clutched

2nd Generation, hand-reared birds, produced chicks.

21 Rails released into 3 of 5 Target Marshes!

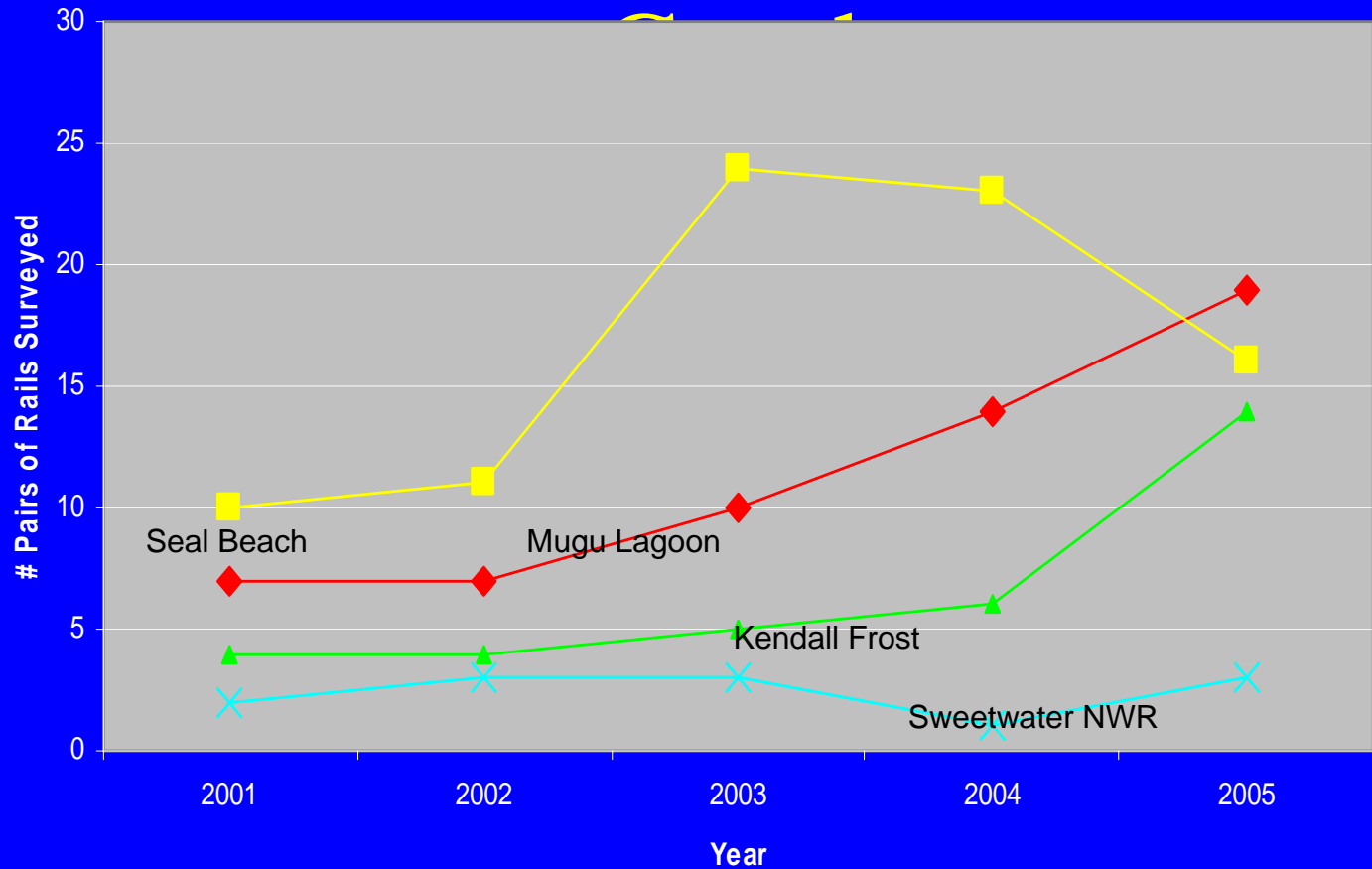


# Telemetry 2005

Telemetry helped to establish the severity of raptors and bird movements



# Receiver Marsh Population





## **Current Season Accomplishments (August, 2006):**

**5 Captive Pairs (3 at CVNC, 2 at SeaWorld, 2 at Wild Animal Park)**

**~160 fledglings**

**released into receiver marshes in the United States**

**2005: highest annual U.S. population census since monitoring began**

**(Fledglings released at Seal Beach, Pt. Mugu, Bataquitos Lagoon, San Elijo Lagoon, Sweetwater Marsh, San Diego River, etc.)**

**We have proven that rails can be captively raised successfully with no apparent physical or behavioral fitness issues, both by hand rearing and parent rearing.**

**We have successfully radio tracked rails in the wild that appear to have survived and intermingled with wild populations.**

# Future Needs

- A rangewide genetics study  
CRES/FWS/CICESE
- International Conservation efforts
- Continued Wetland Restoration efforts
- Meaningful Conservation Measures in Mexico
- NEPA





# More Information

[www.ClapperRail.com](http://www.ClapperRail.com)

